

ISGS #66

CENTREVILLE, NEW RIVER CROSSING POTENTIAL WETLAND COMPENSATION SITE

FAP 999

St. Clair County, near Centreville, Illinois

Primary Project Manager: Steven E. Benton Secondary Project Manager: not assigned

SITE HISTORY

- December 2001: An Initial Site Evaluation was performed.
- March 13, 2002: A Level II hydrogeologic assessment was requested by IDOT.
- July 2002: A monitoring network consisting of 28 monitoring wells in 14 well clusters, and a staff gauge and data logger in the main drainage ditch was installed.
- February 2004: Level II hydrogeologic characterization report submitted to IDOT.
- July 2004: IDOT requested that monitoring of this site be discontinued.

WETLAND HYDROLOGY CALCULATION FOR 2004

The area of the site that satisfied wetland hydrology criteria (U.S. Army Corps of Engineers 1987) for more than 5% of the 2004 growing season was estimated to be 11.5 ac (4.6 ha), which is about 20% of the site. The area that satisfied wetland hydrology criteria for more than 12.5% of the growing season was also estimated to be 11.5 ac (4.6 ha). These estimates are based on the following factors:

- According to the Midwest Climate Center, the median length of the growing season, as measured at the Belleville SIU Research station, is 203 days (April 5 to October 24); 12.5% of the growing season is 25 days.
- Total precipitation during the monitoring period, as recorded at the SIU Belleville, IL Research station, was 49.07 inches, which was 125% of normal. The wettest month during the period was May 2004 (209% of normal), and the driest month was April 2004 (34% of normal). Precipitation was below normal from February 2004 to April 2004, otherwise there were no other extended periods greater than 2 months of either above or below normal precipitation.
- In 2004, water levels measured in wells 1S, 2S, 3S, 5S, and 10S satisfied the wetland hydrology criteria for more than 5% of the growing season. These same wells also satisfied the wetland hydrology criteria for more than 12.5% of the growing season.
- Surface-water data recorded in the main drainage ditch (Global 1) reveal that water was present in the main ditch for more than 5% of the growing season. Water was also present for more than 12.5% of the growing season. Surface-water data recorded at staff gauge B, reveals that areas below an elevation of about 123.4 m were inundated for more than 5% of the growing season. These areas were also inundated for more than 12.5% of the growing season. Visual observations also reveal that water was present in the subsidiary drainage ditch during the months of May and June.

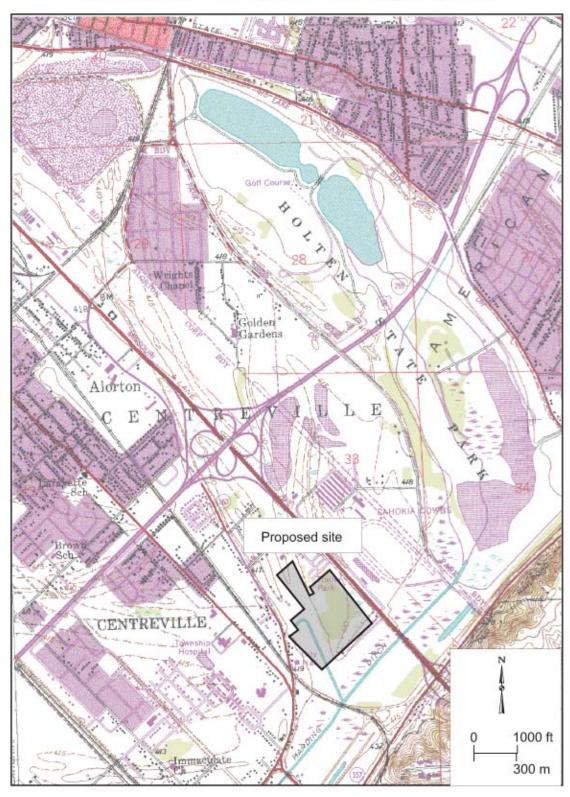
PLANNED FUTURE ACTIVITIES

• Monitoring wells and staff gauges at this site will be removed as soon as possible.

Centreville, New River Crossing Potential Wetland Compensation Site (FAP 999)

General Study Area And Vicinity

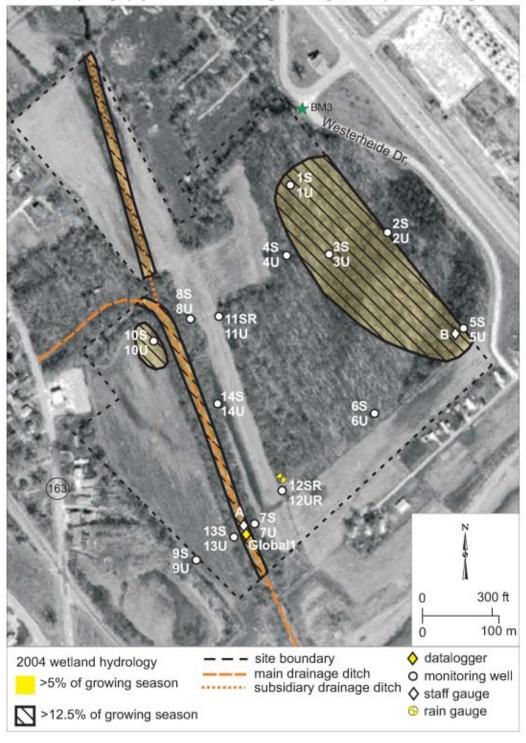
base map from the French Village 7.5-minute Quadrangle (USGS 1998)



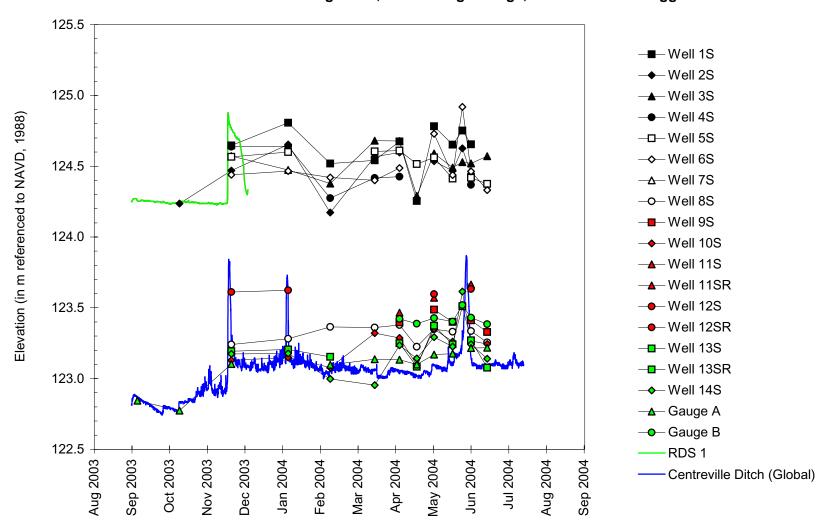
Centreville Potential Wetland Banking Site (New River Crossing, FAP 999) Extent of 2004 Wetland Hydrology

based on data collected from September 1, 2003 to September 1, 2004

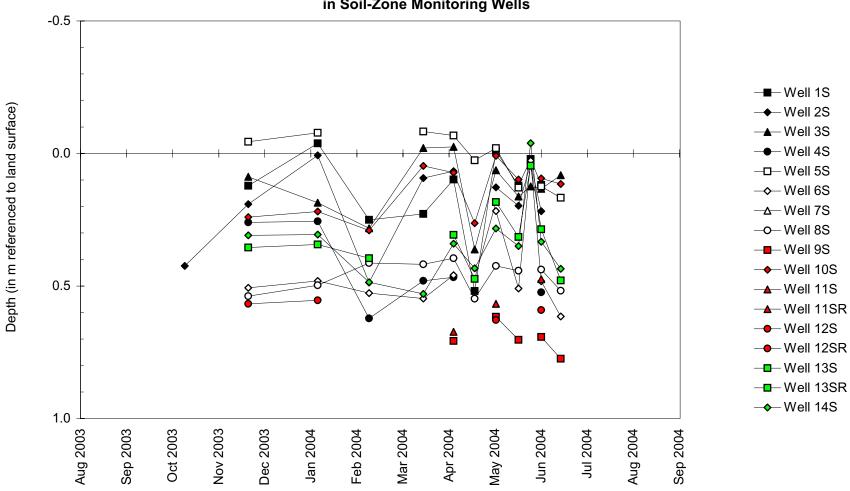
aerial photography from the French Village, NW Digital Orthophoto Quadrangle



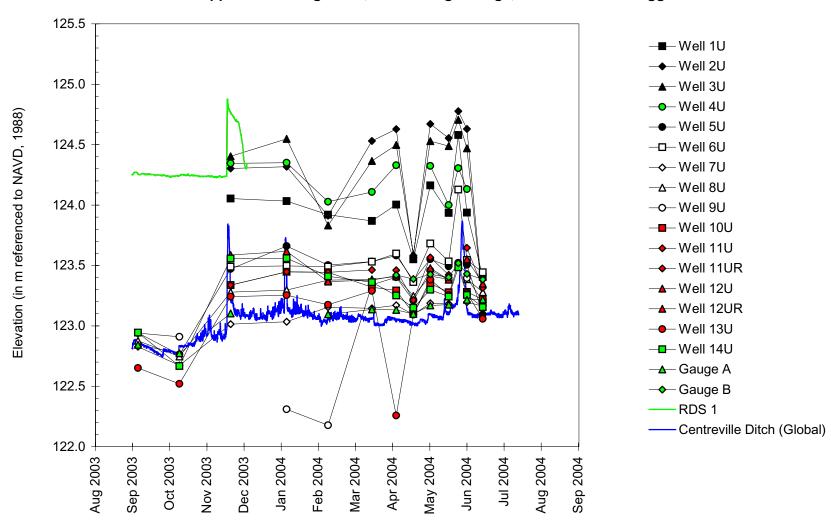
Water-Level Elevations in Soil-Zone Monitoring Wells, on the Stage Gauge, and at the Data Loggers

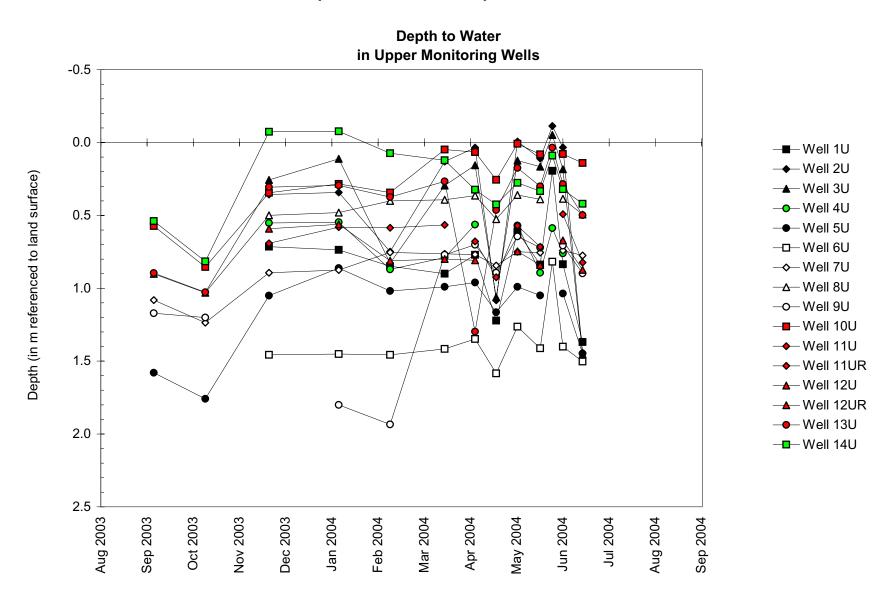






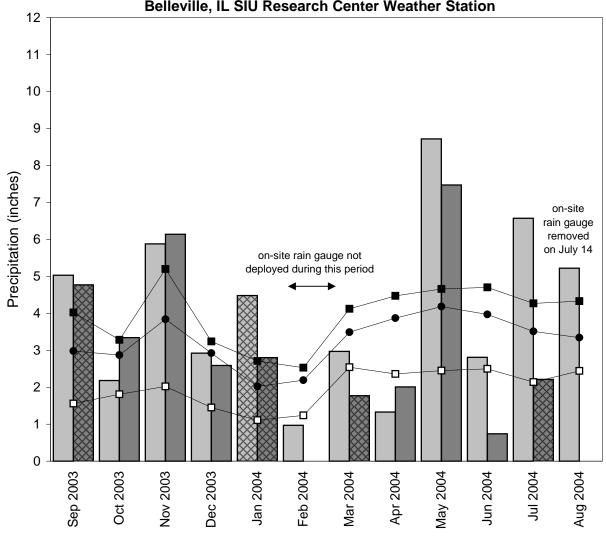
Water-Level Elevations in Upper Monitoring Wells, on the Stage Gauge, and at the Data Loggers





Centreville, New River Crossing Potential Wetland Compensation Site September 2003 through August 2004

Total Monthly Precipitation Recorded at the Belleville, IL SIU Research Center Weather Station



- monthly precipitation recorded at weather station (Midwestern Regional Climate Center)
- monthly precipitation recorded on site by ISGS
- 1971-2000 monthly average precipitation (National Water and Climate Center)
- —■ 1971-2000 monthly 30% above average threshold (National Water and Climate Center)
- 1971-2000 monthly 30% below average threshold (National Water and Climate Center)

data incomplete